



THOMAS G. NEWMAN,
EDITOR.

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EDITORIAL BUZZINGS.

Give us of your sunshine,
O! ye bonny spring,
Of your golden treasure,
Days of sunlight bring.

Come and deck with beauty
Hill and valley fair,
Every swaying tree-top,
Every meadow bare,
Robe all with beauty rare.

Acrostic.

—LIZZIE GODFREY.

Christ Before Pilate, a painting by Munkacsy, the famous Hungarian artist, is on exhibition at Central Music Hall, Chicago, where it may be seen during the day and evening for several weeks. It measures 18x25 feet including the frame, and contains nearly forty life-sized figures. When gazing at the picture as it stands draped on the stage, in the large hushed hall, one almost waits to hear words issue from the canvas, so very realistic does the scene appear.

Honey on the Bill of Fare.—F. A. Huntley, in the *Minnesota Farmer*, says about the future of honey consumption:

Bee-keeping was one of the first rural occupations. At the time when man first commenced to stir the soil for his daily bread, bees were managed for domestic use, to furnish the only product then known and used exclusively as a sweet. The discovery of sugar making supplied a cheaper staple, which placed honey among the luxuries. For hundreds of years such has been the state of the honey trade. Now we see advanced bee-keeping increasing the production to an extent that will soon place honey on the regular bill of fare of the most unpretentious hotels. "Indeed, we should see it there to-day."

The way to do it, is for bee-keepers and others to call for it when at hotels. "Mine host" will provide whatever is demanded. If honey is not required, it will not be provided.

Let Statistics Alone.—H. M. Moyer, of Berks County, Pa., writes as follows, for publication, on the subject indicated in the heading:

To get governmental statistics through the assessors may be good for some, but I am sure for the majority of bee-keepers it is not a good thing. If the assessors do such work they will surely tax the bees. We have to pay enough tax without the bees in such a poor locality as this. There are enough, without the bees, in the United States to pay taxes for. It is not pleasant, when we have not money enough to pay for other things. Why should bee-keepers pay a tax when the poultry-keepers do not? In some places they pay taxes, but in general they do not. What is the taxable value of a colony of bees? Somewhere I have read that it is \$3.00. They generally sell them for \$10.00; to value them to the assessors at \$3.00 does not look honest! In Pennsylvania we must make an affidavit as to the value of all our taxed articles, and to tax colonies of bees at \$3, \$10, or \$12 would make too much tax. If you will work for the benefit of bee-keepers in general, let the governmental statistics and assessors alone.

Evidently Mr. Moyer does not understand the object of obtaining statistical information. He thinks, perhaps, that what is desired, is prompted by idle curiosity; or, peradventure, for rivalry as between States or localities—to show which are the greatest honey-producing localities, or to indicate which are the most important in the industry of bee-keeping. But such is very far from the facts in the case.

It has been fully demonstrated that information concerning the supply of any commodity is of special value to its producers in fixing the prices at which such products may be put upon the markets of the world.

Not only is it desirable to know the number of persons engaged in the production of honey, and the number of colonies of bees they keep, but also the amount of the annual product of marketable honey (both comb and extracted), and also of beeswax.

Such information, furnished at the right time, would be of great value to those who are engaged in the industry of honey-production. The fear that assessors would tax the colonies of bees is not worthy of consideration. The blanks issued by many of the States for obtaining statistics are totally independent of the taxing blanks; and whether bees are to be taxed or not is determined by the laws of the State, and not the whim of the assessor.

It is all very well to say, "Let statistics alone!" but when the bee-keepers in convention assembled appointed committees to attend to the matter, map out plans and put them into operation—they, in their united wisdom, evidently thought that the statistical information was worth obtaining, and, if obtained, it would be of much value to the industry at large.

From the efforts put forth this spring it has been ascertained that the loss during the past winter was only 15 per cent., and that the prospect for a good honey crop is very fair! Is this not worth knowing? Many think so, even if Mr. Moyer does not!

Diabetes and Sugar-Eating.—Mrs. H. Hills, of Sheboygan Falls, Wis., on April 26, 1888, writes us as follows on the above-named subject:

In the *Union Signal* published at Chicago, dated April 19, 1888, James Clement Ambrose remarks as follows:

In every ten cases of diabetes nine are the result of sugar-eating, and honey is a more unwholesome sweet, for with the sweet the bees gather more or less of the volatile oils at the base of the flowers, many of which oils are poisonous.

Is this not some "wily" fellow's talk?

Yes; of course it is. We have consulted with many physicians, and with one accord they deny the wily assertions of Mr. Ambrose. Diabetes is not caused by sugar-eating or honey-sucking. It is a disorder of the general system from the non-assimilation of food, leaving an excess of animal sugar in the blood and secretions. Although its cause and cure are not fully known, yet it can be controlled to some extent by a careful diet, clothing and warm baths.

The ingeniously-worded statement of Mr. Ambrose, about honey being poisonous is too absurd for anything. For fifty centuries it was about the only sweet used by man, and is still a prominent ingredient in all the best and most potent medicines! Such a statement as that made by the *Union Signal* is of the most stupid and preposterous character!

The Best Advertising Medium.

—The *Bee-Keepers' Review* for April states that while its advertisement has appeared in all the principal bee-papers, that of all those who have answered it, three-fourths say that they saw it in the *AMERICAN BEE JOURNAL*! Straws show which way the wind blows. As a means of placing anything of value before bee-keepers, the *AMERICAN BEE JOURNAL* stands at the head. The *BEST* is the *cheapest*.

The above paragraph, which we published last week, Mr. Hutchinson desires to have amended thus: "Of all those who mention where they saw his advertisement, three-fourths state that they saw it in the *AMERICAN BEE JOURNAL*."

Since we have been asking our readers, when answering advertisements, to say where they saw them, our advertisers are very well pleased, and the "old reliable" gets full credit for its excellence as an advertising medium.

Every Fruit Grower should have a few colonies of bees, in order to insure the more perfect growth of the crops. The bees, while gathering honey, carry the pollen from flower to flower, and thus fertilize the bloom, spread the growth, and multiply the fruit.

The Wrought-Nails or clout nails used by Mr. Shuck for nailing honey-boards are $\frac{3}{8}$ inch, not $\frac{1}{2}$ as stated on page 205, at the bottom of the first column. It was a typographical error.

Your Full Address, plainly written, is very essential in order to avoid mistakes.

GLEAMS OF NEWS.

Chapman Honey-Plant.—M. W. Shepherd, Rochester, O., on April 26, 1888, writes as follows concerning this honey-plant:

I wrote to Commissioner Coleman for seeds of the Chapman honey-plant, and received them. Please detail the best method of sowing the seed, and caring for the plants while growing.

The season thus far has been very unfavorable for bees. Owing to the continued cold weather the supply of pollen has been cut short, and the result is, the bees have not generally built up as they otherwise would have done. The outlook for white clover is bad, but linden may produce well. There has never been any honey gathered from fall bloom here—not more than for the keeping up of brood-rearing.

The following are the instructions given in the report of the committee appointed by the Detroit Convention to examine and report on this plant:

Its seed may be scattered in waste places, or it may be sown in drills or hills like onion seed. It seems to be characteristic of the plant to root out all other vegetation, and take possession of the soil. It may be sown broadcast, and harrowed in like rye. By the latter method it makes a vigorous growth, and seems to take entire possession of the soil.

The height of the mature plant is from 3 to 4½ feet; each root bears from 5 to 15 round balls or heads, from 1 inch to 1½ inches in diameter. These heads stand upright, and the entire surface is covered with small, white flowers bearing bluish stamens. The stalks and leaves so nearly resemble those of the common thistle, that, were it not for the head, the difference would not be easily noticed.

The flowerets on the top of the head open first, then they open later along the sides of the ball, continuing in the order of nature around the entire surface of the sphere. Near the stem the last flowerets open, after the blossoms on the top of the heads have disappeared, and the seed-capsules of the first blossoms have hardened.

From the time of the appearance of the bloom upon the tops of individual heads, until the fading of the last blossoms upon the lower part of the head near the stalk, is about eight days, the continuance of the blooming depending upon the nature of the soil and the season; but the heads or buds sent out from each individual shoot and forming each individual cluster, vary in degree and size, so that the natural term of blooming and honey-bearing may be safely reckoned at from 20 to 30 days.

The term of blooming may also be prolonged to a considerable extent by cutting back a portion of the plants, and the facility with which the honey harvest may be thus prolonged constitutes an important feature when estimating the value of this plant. The plant is hardy, easily propagated, perennial, and appears to flourish in all kinds of soil, and there is no danger of its becoming a pest or noxious weed. It does not bloom until the second season, and as it does not spread in seedling, its extirpation would be easily accomplished.

New Catalogues for 1888 are on our desk, from the following persons:

J. C. Sayles, Hartford, Wis.—10 pages—Applarian Supplies.

J. N. Colwick, Norse, Texas—1 page—Italian Bees.

Bogus Comb Honey Again.

One of our subscribers being in Chicago recently, called at this office and left the card of a certain commission firm in this city, who bluffed him and almost made him believe that they could supply any amount of *manufactured* comb honey; that they knew where it was *made*, and that they could furnish it on short notice. He requested us to investigate it thoroughly.

Having the above information (?) we proceeded to look into the matter. We called upon the before-mentioned firm, and was shown some comb honey in cases holding 21 pounds each. The cases and also the sections were covered with propolis, and the combs were somewhat irregular—all indicating that it was genuine honey, and not the reported manufactured article.

In order to ascertain the truth regarding their claim to be able to furnish the manufactured comb honey, we asked if that really was the *bogus* article; and almost before we had finished our question, we were met with a strong assurance that the firm never had anything to do with manufactured honey. "Why," said they, "we would give \$500 for a sample of manufactured comb honey. The Michigan Bee-Keepers' Association has offered \$1,000 for a pound of it. You cannot find it in Chicago. It does not exist!" Thus was another false report exploded.

Ever and anon the famous—and infamous—Wiley lie appears in its various forms, but never without all its blighting effects; and just as frequently as it reappears, it is met and "downed"—but, alas, it will not stay down, so long as exist those who are so willing to do anything to cause a sensation. Enough has been written already to have a thousand times relegated that "scientific plesantry" to the borne where many other fine-spun theories and hallucinations of attenuated imaginations have been forced.

But why will bee-keepers assist in keeping the "Wiley lie" upon its feet? Why do they not attempt to stop its ravages, instead of repeating what they know to be untrue? Hereafter let all compel every one who asserts that comb honey is manufactured, to produce the *proof*, and thus help to enlighten the public, and to close up the mouths of irresponsible reporters, whose perverted imaginations and greed for notoriety, is unequalled except by the falsity of the fabrications which they produce. By so doing the malicious slanderers would soon cease their abuse of this immaculate and inimitable sweetness—honey in the comb.

CONVENTION NOTICES.

☞ The next meeting of the N. W. Ills. and S. W. Wis. Bee-Keepers' Association will be held in Rockton, Ills., May 22, 1888. D. A. FULLER, Sec.

☞ The spring meeting of the Wisconsin Lake Shore Center Bee-Keepers' Association will be held on May 31, 1888, in Mueller's Hall, at Kiel, Wis. FRED. ZASTROW, Sec.

☞ The Hardin County Bee-Keepers' Association will meet at the Court House in Eldora, Iowa, on the second Saturday in each month, at noon (12 o'clock), until further notice. J. W. BUCHANAN, Sec.

INTERROGATORIES.

Cleaning Musty Combs.—A Subscriber at Creamery, Pa., asks the following questions:

Will the bees clean out old, musty brood-combs containing larvæ and dead bees? Or would it be better to melt them into wax?

Yes; the bees will clean them up better, quicker and cheaper than you can do it; and if the combs are straight and in good condition otherwise, it will be better to let the bees clean them, than to melt them up.

Bees Robbing.—P. M. Little, New Waterford, O., sends us the following to answer:

I have 10 colonies of Italian bees. A neighbor of mine, about one mile distant, has 13 colonies, and some of them are weak. Some three weeks ago, or less, he fed his bees outside; about a week ago he took the old hives from the stands and transferred the frames and bees into clean hives, (being careless about his work.) On Friday and Saturday of last week 3 of my strongest colonies attacked his weak ones, and destroyed 4 or 5 of them. He wanted me to shut my bees up, or he would kill them. In justice to both parties, what would be the proper method of procedure to allay the trouble; that is, to stop the robbing?

The careless work of your neighbor makes him responsible for the robbing; his bungling work *caused* it. As robbing is demoralizing, not only to his apiary, but also to yours, it was to your interest to do all you could to stop it, and should have contracted the entrances to your hives so that only one or two bees could pass at a time. The weak colonies of your neighbor should have been covered up with a large sheet; this would allow the robbers to leave, and keep others from getting in, and still not smother the bees; or they may be removed to a cellar for a few days, and when returned to their stands, the entrances should be contracted, so as to allow but a single bee to pass—thus enabling the bees to defend their hive.

"The Rulers, Flags, and Coats-of-Arms of all Nations," the title of the beautifully lithographed album published by W. Duke, Sons & Co., the cigarette manufacturers of Durham, N. C., is on our desk.

The album contains pictures of rulers and statesmen, which approximate the color and naturalness of fine and artistic oil paintings. The beauty and accuracy of all the portraits are interesting as an exhibit of the perfection attained in the art of lithography in colors. Aside from its completeness, the album has value as a book of reference. Its beauty and utility make it worthy of a place in any parlor. The firm sends it for 75 of their cigarette folders returned to them.

New Subscribers can obtain the full numbers for 1887 and 1888, for \$1.75, while there are any sets of 1887 left.

QUERIES & REPLIES.

Records of Queens, and Superseding Them.

Written for the American Bee Journal

Query 540.—Is it best to keep a record of the queens, so as to supersede them when they are two or three years old, or let the bees manage it in their own way?—Indiana.

It is best to keep a record.—J. P. H. BROWN.

Let the bees do it.—DADANT & SON.
I let the bees take care of that matter.—G. M. DOOLITTLE.

Perhaps so, but I never have superseded my old queens.—EUGENE SECOR.

Keep a record of everything, and supersede the queen when she ceases to be prolific.—A. B. MASON.

I have never kept a perfect record, but I am inclined to think that it is the best way.—MRS. L. HARRISON.

Keep a record anyway; but I do not know what is best as to the superseding.—C. C. MILLER.

It is much better to keep a record. Supersede the queens when they begin to fail—it makes no difference if they are 1 or 3 years old.—P. L. VIALLO.

I let the bees manage it in their own way, with all valuable queens.—G. L. TINKER.

Deeds, not days, determine a queen's usefulness. With experience you can tell when a queen becomes unprofitable by looking into her hive, and I should assist the bees as much as possible to supersede worthless queens.—R. L. TAYLOR.

I prefer to keep a record of all queens, including pedigree, so far as ascertainable. But I let the bees supersede a good queen. They know when to do it.—M. MAHIN.

I keep a record only of my fine breeding queens, and the older they are, the better for breeding purposes. I let my bees supersede their own queens.—G. W. DEMAREE.

No; let the bees manage it. I keep records of sale queens only. The bees do it better than we can, cost considered.—JAMES HEDDON.

Keep a record always. Thus you will know the pedigree, etc., and be able at any and all times to know the age of every queen in the apiary.—J. E. POND.

Yes, keep a record of queens, but supersede them only when they decline in vigor. Superseding by rule would often depose queens of great value. The bee-keeper must have brains as well as a record.—J. M. SHUCK.

I think that the bees can manage the matter for themselves. If queens are found that are doing very poorly, it pays to supersede them; but age is not the test. Our vision will serve better.—A. J. COOK.

As a rule, the bees will attend to these matters more satisfactorily than you could possibly do, and before you are aware that such was their intention. It is well enough to know which hives your best queens occupy, and if you have many colonies it will necessitate a record.—J. M. HAMBAUGH.

I find that the bees manage that thing very successfully, if you let them alone. You will find many cases where it is best to supersede, and you will not be obliged to keep a record to find it out. For a beginner in the business, a record of all work is an excellent help.—H. D. CUTTING.

I think that it would be a good idea to keep a record of the age of queens. I do not think, however, that it would be advisable to supersede queens less than four years old, unless they prove inferior; in that case do so at once. I supersede only such as fall below my standard.—C. H. DIBBERN.

It is certainly best to keep a record of queens, but as to superseding the queens, the bees will manage that more satisfactorily themselves.—THE EDITOR.

Metal Rabbets in Hives—Prolific Queens.

Written for the American Bee Journal

Query 541.—1. Do you use metal supports (called metal rabbets) in your hives? 2. If not, why not? 3. With everything favorable, can a prolific queen keep more than 12 Gallup frames (or their equivalents in comb surface) filled with brood?—Q.

1. Yes. 2. Yes.—P. L. VIALLO.

1. Yes. 3. No.—A. J. COOK.

1. I do not. 2. I do not need them. 3. I think that is sufficient space for brood.—MRS. L. HARRISON.

1. No, except on reversible frames. 2. They hurt my fingers in handling, and also get bent. 3. Yes.—A. B. MASON.

1. No. 2. They are of no use. 3. No.—M. MAHIN.

1. Yes. 3. For a short time in May and June, yes.—G. L. TINKER.

1. No. 2. Principally because tin rabbets make the frames too loose for hauling.—C. C. MILLER.

1. I have used metal supports for many years, and I like them on account of the bees not sticking them up with propolis. 3. I consider the number of frames mentioned as abundant for the purpose.—C. H. DIBBERN.

1. I do. 3. Twelve frames are about as many as an average queen can keep filled.—J. P. H. BROWN.

1. Yes. 3. I have seen queens that would do it; but when you say 12 frames filled with brood, you say a great deal.—H. D. CUTTING.

1. Yes, in some of my old ones, but not in any made within five years. 2. Because their disadvantages just about equal their advantages, and their cost is an entire loss. 3. No, but a very prolific one might for a time.—R. L. TAYLOR.

1. I use about one-half metal supports. Some object to them, but I look upon them as of value. 3. I have had queens keep 20, and in one case 30, Langstroth frames filled with brood during a whole season.—J. E. POND.

1. I do not. 2. My greatest objection is, that they allow the combs to slide around when moving the hive. 3. Yes. I have seen as high as 16 Quinby frames, well stocked with brood from one queen.—J. M. HAMBAUGH.

1. Not as a general thing. 2. Because they have as many disadvantages as they have advantages, and do not pay for their cost in my apiary. 3. Yes, and in some cases more. But it is not advisable to let them ever do things in that way. Eight Langstroth frames full of brood is enough for the best results. I want the other two of the ten frames full of sealed honey.—G. W. DEMAREE.

1. No. 2. Because I do not consider them enough better to pay for extra expense. 3. Mine do not average over 9 such frames full of brood when working for comb honey. However, in working for extracted honey, I have had them keep 20 or more frames filled for a month at a time.—G. M. DOOLITTLE.

1. Never, in the brood-chamber. Hanging frames bother enough in the movable-hive system of honey-producing without metal rabbets. I have tried them again and again. In extracting supers of the Langstroth system, I prefer them, but I am abandoning the Langstroth frame for extracting.—JAMES HEDDON.

1. No. My hives are not made that way. 3. Twelve Gallup frames full of brood from May 15 to Aug. 15 would be a good record for a queen in this locality. Some might do better, but with hives arranged for the average queen-bee, such would be uselessly prolific.—J. M. SHUCK.

1. I have quite a number of hives with metal rabbets. I like them better alone than in conjunction with metal-cornered frames; with both they are too movable for anything except ex-

tracting and queen-rearing. For comb honey it is not necessary to manipulate the frames every week. 3. Let us figure a little: One authority gives about 125 square inches on each side of a Gallup frame. At 25 cells to the square inch, would give 3,125 worker cells; $24 \times 3125 = 75,000$ cells in the hive. A queen would have to lay more than 3,500 a day to fill the hive in 21 days. Allowing one-third of the above frame-space for honey and pollen she would still have to average more than 2,500 eggs a day to keep it full.—EUGENE SECOR.

1. Yes; we used them almost exclusively for several years. Their chief advantage is in not allowing the bees to stick them down with propolis. 3. No; not in ordinary cases.—THE EDITOR.

CORRESPONDENCE.

EATING HONEY.

Educating the People to the Use of Extracted Honey.

Written for the American Bee Journal
BY W. J. CULLINAN.

Four years ago last June I began the keeping of bees, and since that time myself and family have not known what it is to be without honey in the house, and on the table—eating it almost three times daily during that period. We always ate and preferred it separated from the comb, and whatever I produced in the comb was sold to those who preferred it in that shape. I always considered them, however, more nice and particular in selection than sound and experienced in judgment, as to that which was best; for if comb honey is good, extracted honey is certainly better, and it requires but a brief trial in the case of the unprejudiced, to demonstrate the fact.

Let those who have been "wedded to their idols" so strongly as to eat nothing but comb honey, and who have been swallowing large quantities of the unpalatable and indigestible stuff called "wax"—which, by the way, is only a receptacle for the pure nectar which is secreted in the flowers—discard it for a time and resort to the use of the pure, clear and clean article, known to the bee-fraternity as *extracted honey*; and after using it three months, if they do not admit that their digestive organs have improved, and they feel better, and it was the *honey* they were after, after all, I shall have missed my guess, and still be inclined to doubt their judgment as to

that which is good. Let them try it and report.

It has been said before, and said so often that it scarcely needs repeating, that the leading objection to extracted honey, by those uneducated in the mysteries of the art of bee-keeping, is the fear and suspicion of adulteration.

"'Tis pity; pity 'tis;
And pity 'tis, 'tis true."

Now if the consumers of the country (ignorant through no fault of theirs) were educated to the fact that there is no such thing as adulteration at the present time; that glucose, sugar and other saccharine substances formerly used to adulterate honey, cost almost as much as the pure nectar itself, and that those unscrupulous enough to do the mixing, could not make it a success from a dollar-and-cent stand-point (which is about the only thing that would induce them to engage in it), they would soon begin to think differently, and this blight—or curse—which has hung like a black-winged messenger of despair over an innocent fraternity for so long a period, would be at once dispelled, and in its stead a new era be inaugurated in which that much-maligned, but ever-to-be-praised article, *extracted honey*, would occupy its proper niche among the products of the hive.

The difference in the price of comb and extracted honey at the present time is too great, and it is due to no other cause than the suspicion of adulteration. Here in Kansas City comb honey is retailing for 25 cents per pound, while they retail just as good an article of extracted for 12½ cents. To come down to the real merit of the two—and it is by merit that we arrive at value—the extracted honey is worth the most, pound for pound; and when you buy a pound of extracted honey you get 16 ounces; but it is different when you buy a *section* of comb honey (it is sold by sections here). The retail dealer would always rather have a 24-pound crate that weighed only 22 pounds, than one of full weight, because in that case he makes 2 pounds of honey to the crate clear, besides his profit; so that when you buy a pound of comb honey you get about 1 ounce of wood, 1 ounce of comb, and full 1 ounce short weight, leaving you only 13 ounces of honey.

Now why should 13 ounces of honey, because it is encased in comb and wood, bring as much in the market as 32 ounces of the pure nectar, thrown from the comb? Surely there is something wrong. And I cannot help thinking that most, if not all of the trouble is due to the name—"extracted honey." The name is so closely allied with extracts, essences and various artificial compounds, that it is scarcely

to be wondered at—though much to be deplored—that nearly nine-tenths of the people outside of the bee-keeping fraternity themselves, look with a suspicious eye upon the transparent nectar displayed, for sale in large quantities, and labeled "extracted honey."

After an experience of about five years in producing and selling honey, I cannot help entertaining the belief that the word "extracted," as used in connection with honey, has worked an injury to the honey-trade that it will take long years to repair, and created a doubt in the minds of the majority of consumers, that will require much time and patience on the part of the honey-vender to explain away.

I can well remember when a boy, that jars of clear "strained" honey were looked upon with an eye of pride, and their contents prized as a toothsome article in many a farm-house. More value was attached to it than to that much comb honey.

I have not written this article for the purpose of calling out any discussion upon the subject, but simply from a humanitarian stand-point. Should it set some genius to thinking, who might be able to hit upon a plan by which my favorite article of diet could be lifted from the mystery and doubt which at present surrounds it, I shall feel highly recompensed.

Kansas City, Mo.

SPRING TALK.

Some Seasonable Hints to the Beginners.

Written for the Prairie Farmer
BY MRS. L. HARRISON.

In some localities it may pay to feed meal or unbolted wheat flour or ground oats; but here, along the Illinois river, there is generally natural pollen to be gathered as soon as it is warm enough for bees to fly. The overflow from the river draws out the frost and causes earlier bloom.

Ash-leaved maple (*Neyundo aceroides*), which is commonly known as box-elder, is a great favorite with bees, yielding both honey and pollen. One year a neighbor came in, saying, "Your bees are swarming in my trees." On going to them I saw at once why they were there; the trees were alive with bees, and the happy hum of industry prevailed, and not that peculiar note which is heard when bees swarm.

Ash-leaved maples are planted largely as a shade tree throughout the city, and some years are a source of much honey and pollen, which imparts new life to the bees, and stimulates brood-rearing. We drove through the streets yesterday to look at these trees,

and admired the pretty little tassels on every bough, as they blossom just as the leaves start. Like the country maid and her milk pail, we calculated how much profit we should reap by our bees gathering honey and pollen from them. But alas! like the milk-maid of old, our pail is upset, for last night (April 18) a heavy frost and freeze occurred, which blasted our hopes for honey from this source at least.

There will be no peach bloom, and very little cherry, for the trees have all been killed by drouth and cold, and we comfort our hearts that we may at least have bloom on crab-apples; and dandelions are hardy, if they are not all dug up for greens. The catkins on the silver-leaves and cotton-woods are growing, and yield pollen.

In the meantime, let bee-keepers, one and all, not sit idly on their hives whistling to keep their courage up, but go to work with a will, and clean up the apiary, and let it at least look prosperous, for honey comes like a thief in the night, at a time when we are not looking for it—so have all things ready. Do not disturb the bees and kick over hives. See to it that every hive stands true and firm, for if the hives lean to one side, crooked honey will be built, just as surely as water runs down hill. Look out for leaky roofs, closing cracks with paint.

I have never seen bad results follow painting hives with bees in them. You may find some dead colonies; if so, lift out the frames, and clean out the hive. A wide chisel is a good tool to use in scraping out a hive. If the hive is foul, scrub it out with hot suds and rinse with boiling water. Efface every trace of diarrhea, for who knows but it may breed disease. Scrape off the frames, brush off the bees with a whisk-broom, and cut off all queen-cells, for they are never used again, and are unsightly.

Do not spend time picking dead bees out of the comb with a pin or pinchers, for the bees have better tools to do it with than you, and can work more cheaply. The frames can be put back into the hive, which will be better for a fresh coat of paint, for a hive should last as long as a house, if kept well painted. A new swarm will be very glad of this hive well furnished, all ready for housekeeping, and not empty.

The old Scotchman said to his son: "Jock, plant a tree, it will be growing nights while you sleep." If you do not plant a tree in the apiary, plant a grapevine, and in three years you can eat the fruit of it. Then when you are tired in the fall, taking off honey, you can sit in the shade of the vine, and obtain from the refreshing fruit renewed courage for the fray.

Peoria, Ills.

EXPERIMENTS

In Making Hives Suited to the Art and Times.

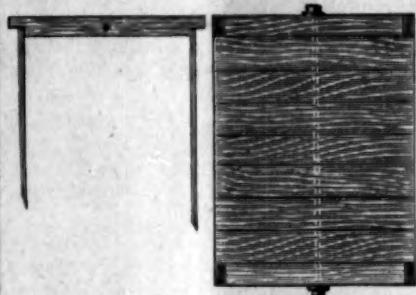
Written for the American Bee Journal

BY G. M. ALVES.

I have experimented with many different kinds of hives, without finding one which exactly suited me. Probably some churlish bee-keeper will add, "and you never will." Be that as it may, I have recently constructed a few hives, for next season's experiment, which, in my humble opinion, contain less objections and more advantages, than any other that I have used or read about.

A description of my hive is submitted, for the consideration of those unfortunates, who, like myself, are always craving something better.

The hive consists simply of as many frames as one chooses to use, placed side by side with boards placed on each side of the frames. The upright pieces of the frames are $\frac{3}{4}$ of an inch thick and $1\frac{1}{2}$ inches wide, with holes as shown in the illustration. The top and bottom bars of the frames are $\frac{1}{4}$ by



$\frac{1}{4}$ inch. All of the corners of the frames are alike, and as shown in the figure. The side-boards are the same length and height as the frames, and have corresponding holes in the ends. The size of the holes of the side-boards and frames are $\frac{1}{4}$ -inch, excepting the centre frames, which have $\frac{1}{2}$ -inch holes.

I use $\frac{3}{4}$ -inch bolts without nuts, but with washers; hence the bolts screw firmly into the centre frame, and at the same time have ample play in the other frames and side-boards to provide for slight inequalities. Of course the bolts are to be manipulated with a wrench, and when so done you have the whole held together with a vice-like grip; in fact, you practically have a solid box which you could throw over the fence without injury.

Let us now consider the advantages of this hive:

1. By means of different length of bolts, you can expand or contract the hive to any desired extent. A 3-frame hive will take four 3-inch bolts; a 5-

frame hive will take 4 $\frac{1}{2}$ -inch bolts; a 7-frame hive will take four 6-inch bolts; and a 9-frame hive will take four $7\frac{1}{2}$ -inch bolts, and so on. If you desire to divide a hive into 2 nuclei, you have but to introduce a thin division-board in the centre.

2. There can be no sagging, warping or dislocation of the frames, as is frequently the case with hanging frames.

3. A very precise accuracy in construction is not necessary.

4. The hive is easy of construction, and not expensive; $\frac{1}{4}$ by 6 inch bolts may be had at about 3 cents each.

5. It has all of the advantages of a box-hive (and it has advantages) and a movable-frame hive.

6. Last but not least, it is a reversible hive. This feature is tabooed by some, but when practiced at the proper time, it will nevertheless give excellent results. It affords all of the advantages of spreading the brood, without its serious risks.

Should the bee-keeper at the time when he finds the first clover blossom in some warm and protected fence-corner, reverse the hives or frames of thrifty colonies, take my word for it, he will have more gatherers for the harvest.

Henderson, Ky.

KENTUCKY.

Successful Wintering—Bee-Culture in Kentucky.

Written for the American Bee Journal

BY JAMES M. TYLER.

Having given, on page 821 of the AMERICAN BEE JOURNAL for 1887, the manner of wintering bees in Kentucky in the Langstroth hives, I will report the results.

The 24 of the 25 colonies packed, wintered in fine condition, and on March 26 each one had more or less brood, and were bringing in pollen from the elm and maple bloom with a vim. The one that perished was 1 of the 7 colonies made by division, about July 1, 1887. But for an oversight in allowing them all the frames, and failing to put them between division-boards, as I did with the other small colonies, I am sure that there would have been no loss.

These nuclei colonies did not build up much, owing to the severe drouth. They covered only from 2 to 3 frames. I would have doubled them up, but I desired to save my queens that I reared from my best stock. I gave them only about 10 or 12 pounds of honey to the colony, mostly uncapped and mixed largely with pollen, stored too late in

the fall to allow the bees time to cap it. Such stores doubtless would have proven disastrous to long confinement of the bees in cellars, or even on the summer stands. They had frequent flights at intervals of 8 or 10 days, and at such times they would spatter the tops of the hives with a yellow, watery excrement.

Bee-Hives and Frames in Kentucky.

In regard to my venerable and respected friend, Mr. G. W. Demaree, I would say that when I saw the heading of his article on page 184, I read it with great avidity, as just the information I wanted. He and my former countyman, Dr. Allen, now of Kansas, have been in the past the Gamaliels and Mentors of the smaller bee-keepers of Kentucky. From them and other specialists we have learned what little we know about bee-culture. But I was soon greatly surprised to find that with his pen (which he knows so well how to wield) he was after me, because I expressed my fears that I might be a little behind the times in adhering to the 10-frame, 2-story, cottage-roof, telescope-body, portico-front Langstroth bee-hive, which Mr. Muth calls his "favorite;" because I condemned the zinc, slotted, queen-excluding honey-board; because I thought the Heddon break-joint slotted honey-board was a good thing; because I did not give the orthodox method of wintering bees in Kentucky; and, it seems, because I recommended anything necessary other than an abundance of stores for wintering bees successfully here.

The fact is, Mr. Demaree's article reminded me very much of a colony of cross hybrids that had not been tamed. They will follow every person, animal or fowl about the premises, trying to sting, saying by their actions, "You have no business fooling around here, anyhow."

By way of apology, let me tell what inspired me to write. A few years ago I lived in Chicago for about a year, and while there, those go-ahead, pushing Northerners, with whom I became acquainted, talked to me after this fashion: "We like the Kentuckians pretty well, but do you know that you are about a hundred years behind, down there in Kentucky?" Ever since I returned I have believed this to be a fact, and I have an idea that we are far behind in bee-culture.

It occurred to me that the editor of the AMERICAN BEE JOURNAL was one of those who could enlighten me on the subject. I meant to inquire after the best form of the Langstroth hive for use in this locality. His answer was satisfactory, and I have laid in another supply of the Langstroth hives of the same pattern.

Mr. Demaree misconstrued my article, making me convey the idea that the Langstroth hive was but little used in Kentucky. The very universality of the use of the 10-frame Langstroth hive that I described, in small patches, compared to the bee-keepers, rarely exceeding a dozen at a place, and more often not more than two or three; constant reports in the spring, such as, "Half my bees are dead," "The Langstroth hive will not do to winter my bees in;" talk, by intelligent men, of going back to the box-hive, etc., impressed me with the belief that we were, as my Eastern friend said, "A little old-fogy and behind," in bee-culture as well as other matters. We Kentuckians are dreadfully "set in our ways," and inclined to follow in the footsteps of our fathers. They are likely to continue in the same old rut, if they follow Mr. D's advice, that "An abundance of stores is all that is necessary in Kentucky," and read his severe criticisms against any who take the trouble to inform bee-keepers of methods of successful wintering, as followed by Mr. Demaree, Dr. Allen, and other successful bee-keepers.

The readers of my article referred to by Mr. Demaree, and his own article, will be curious to find any difference between that given by me, and by his method; except that he condemns the packing in of the brood-chamber by use of the division-boards and chaff, and does not mention that he uses "Hill's device" on the brood-frames to give a passage-way.

When I shall appear at our next annual bee-keepers' convention, which I expect to attend, I will have a bundle of bee-literature under my arm, and by his own record, condemn Mr. Demaree of contumacy, before a jury of his peers. I will show that while he condemns "all side-packing in the brood-chamber, as a positive injury to the bees," on page 167, in answer to Query 524, he said: "My practice is to place the combs on the south side of the brood-chamber, and close with a division-board on the north side;" and the evidence of the other answers to this Query, and by the editor on the very same page, who says, "To put the combs in the centre, and a division-board on each side is preferable, because of controlling the temperature by the use of absorbents on the sides when bees are wintered on the summer stands."

In the *American Apiculturist* for 1886, page 231, Mr. D. said: "For this climate the best preparation for bees in winter is protection on the north side and west ends of the hive." On page 740, of the AMERICAN BEE JOURNAL for 1887, in answer to Query

496, asking if winter passages were necessary, he said: "I prefer some strips of wood or pieces of corn-stalk between the quilts and tops of the frames, so that the bees can pass over the tops of the frames;" and the editor said that the combined evidence to the Query was, to use "Hill's device or its equivalent."

His brother bee-keepers will surely laugh at him for condemning the method which I pursued in wintering bees here, which method is copied from the plan he and other experienced bee-keepers are following.

My condemnation of the queen-excluding zinc honey-board was doubtless hasty, and owing to the faulty use of it, as Mr. D. says; but I am not sure that it does not injure the bees as they rush through the sharp-edged slots, by tearing their wings and cutting the hairs from their bodies and legs more or less.

They will certainly laugh at my old friend for condemning the break-joint, slotted honey-board, now so universally recommended.

In the future I mean to talk in our county conventions more about the necessity of reading up our bee-literature, and urge the bee-keepers to take the bee-periodicals as the best way to improve bee-culture in this State.

Bowling Green, Ky.

WINTERING BEES.

Six Months' Sleep in the Cellar—Honey-Plants.

Written for the American Bee Journal
BY EUGENE SECOR.

Three weeks before the meeting of the North American Bee-keepers' Society last fall—on Oct. 26—I put into winter quarters about half of my bees. The remainder were put in on Nov. 8. By winter quarters I mean the cellar under the house. On April 21, 1888, I began removing them to the summer stands, and finished on April 23.

The longest time of confinement was 180 days. During that time they never saw daylight nor lamplight. I visited the bee-room less than usual. I had a thermometer in a convenient position, which I examined every few days. It registered as low as 32°, and as high as 50°, but most of the time between 40° and 45°. There is no ventilation in the room, other than what is possible through a plastered or stone wall.

The bees wintered quite well, on the average. Some showed signs of diarrhea, and others not at all. I lost 6 colonies out of 40, and all but one of these by starvation. I have packed

some colonies in dry forest leaves. The others are in single-walled hives.

Silver maple bloom was about over when the bees were brought out. The spring has been very backward, and there have been only a few days when bees ought to leave the home nest. Bees have generally wintered well, so far as I have learned.

Alsike and the Chapman Honey-Plant.

I sowed two bushels of Alsike clover seed this spring. Quite a good deal was sown last spring. Our farmers are beginning to believe that Alsike clover will do well on wet land. If it proves to be a fact, more of it will be sown in the future. The Chapman honey-plant seed which I sowed a year ago, is looking well. All who see the patch think that it is thistle.

Forest City, Iowa, April 27, 1888.

TRANSFERRING.

How and When to Transfer Colonies of Bees.

Written for the American Bee Journal
BY H. E. HILL.

The method given by Mr. Geo. F. Robbins, on page 222, is quite ingenious—perhaps even the “neatest, safest, cheapest, easiest,” etc., but I do not think that it is the “quickest;” and why it is cheaper or easier, I fail to see. The simplest effectual method is what the beginner wants, and improved ideas will follow experience.

If the beginner has more than one colony to transfer (if not, try Mr. Robbins’ plan on that one), have some one to assist; have the empty hive, about fifty very thin strips of pine, $\frac{1}{4}$ -inch in width, and of sufficient length to be tacked across the frame in any direction desired; two boards a little larger than the frame to be used, a light hammer, hatchet, smoker, a pail of water, sponge, a couple of sharp knives, tacks, and a table or bench; and last but not least, a half-dozen good wing-feathers, to be used as bee-brushes.

If but 1 or 2 colonies are to be transferred, I would select the morning or evening, when other bees were quiet. Smoke rather freely in the hive-entrance at first, then tap lightly on the box with the fingers, smoking gently for a few seconds at the entrance (not inside) to prevent the bees from rushing out.

Now lift the box from the stand and place it bottom upwards on the ground beside the new hive, which is placed upon the old stand, with 2 or 3 frames of foundation or empty frames. The bottom is now pried off, while keeping the bees under control by an occa-

sional gentle puff of smoke, as their actions demand. Then a side is removed, giving free scope for business.

It is but the work of a few minutes, to cut out each comb and brush the bees off into the new hive; while the assistant, with the combs and frame upon one of the boards previously prepared, “cuts and fits” the good worker-comb into the new frame, tacking the strips across the frame, so as to support the various shaped pieces. When the first side is finished, place the other board upon it; then lift both boards and frame, and lay them down with the other side upward. Remove the top board, and tack the strips across the other side.

To remove the frame with combs, do not attempt to lift it off the board, but raise one side of the board until the frame stands as it does in the hive, then lift up, drawing it off without displacing the comb. Leave these in the hive, and fill out with empty frames, or frames with full sheets of foundation or starters, as may be desired.

Cover down the hive, sponge off the table, boards, feathers and other tools, remove all particles of honey that might attract robbers, and if the colony is not very strong, contract the hive-entrance and slightly elevate the front, to prevent any dripping honey from running out, until they get “cleaned up.” The whole operation takes about the same length of time that is required to drum the first lot of bees into a “drum-box.”

One advantage that Mr. Robbins’ method possesses over the plan described above (and the only one that I can see) is, the saving of brood, which is quite a consideration, especially when the operator is a novice; but this one weak point in my plan, may to a great extent be obviated, if the operator will remember that each cell of brood represents a worker, and exercise greater care in fitting the brood into the new frames.

During the past two years I have transferred more than 200 colonies of bees in the above way, from odd-sized frames, boxes, barrels, hollow logs, etc., with *invariable success*; and unless the combs are in a worse condition than any that I have met, from one to eight fairly good brood-combs can be saved in this way. If they are of the “cobble-stone pavement” kind, it is the fault of the workman, as any protuberant part may be easily pressed into position two or three days after transferring, and at the same time the sticks may be removed as carefully as possible.

If no eggs are to be found on the fourth or fifth day after transferring, and the bee-keeper has no laying

queen to give them, destroy all queen-cells but one, reserving the better looking one; though my loss of queens in transferring would not exceed 2 per cent.

I have transferred with equal success during every month in the year, but I prefer, and would recommend, doing it at the time of fruit-bloom in this locality.

Mr. Robbins says, with reference to drumming the bees into a box, “In 15 minutes most of the bees, including the queen, will have passed into the drum-box.” Admitting that in the majority of cases the queen would be “included,” it is by no means invariable, especially if it is a young queen, or one of those nervous (?) dispositioned ones that is “all over, and nowhere,” at such a time.

I think that Mr. Robbins should have gone a little further with his explanation, as the results of a beginner, being guided by the positive assertion might prove disastrous. He might follow the rules to the letter, and conclude that the new colony was all right—queen included—but if, upon investigation a couple of weeks later, he found “large white worms in the combs, the bees presenting a black, polished appearance, trembling, very irritable and venomous, and do not act at all like the other bees,” the bee-papers would be called upon to publish a report of “a terrible, nameless bee-disease.”

Titusville, Pa.

HIBERNATION.

Reply to Mr. Clarke’s Critique, on Hibernation of Bees.

Written for the American Bee Journal
BY J. F. LATHAM.

Mr. Clarke supposes, on page 221, that I shall feel slighted if he does not “pay his respects” to my article on page 167. No, not in the least. When I wrote the article in question, the idea of reaching into the burrow of wood-chuck, that I might get bitten, in order to discover the whereabouts of the inmate, was totally absent from my thoughts; as well as the expectation of being made sensible of the existence of my mercurial hypercritic. But, as the resulting consequence of my inadvertency, in not defining my position, with strict regard to personality, I must admit that I do experience a satisfactory surprise at the explosion resulting from unconsciously pricking a bubble.

“It well-nigh bamboozles me,” wrote Mr. Clarke. Well, as my assumed monitor did not get *really* bamboozled, I presume the shock will not be fatal;

at least I hope it may not, for I have no desire to perpetrate a capital offense.

As to "soaring out of the jurisdiction of the court," with due deference, I think that, with proper discrimination, Mr. Clarke will discover an unfortified point in his position, when he attempts to exercise judgment in a sphere where title might be made a matter of dispute. "Rhadamanthus was not always just."

Androgynal—'tis a pretty big word, come to look at it, and requires ten letters to spell it! but, on review, if there is any indiscretion in its use, as applied in my article, I have, as yet, been unable to discover it; and as it is a factor in the English language, I presume its use is free to all; furthermore, if its scope of meaning was fully illustrated, and the deductions that might be drawn therefrom rightly applied, they might supply nourishing food for thought in regard to the phenomena of hibernation, besides, jostling some of the favorite theories of its advocates.

"We all know that hibernate, in its common unscientific use, means merely to pass the winter." Mr. Clarke says, "We human beings and insects hibernate. So do plants and stones." But our scientists tell us that there is another definition applied to hibernation, which describes the specific physiological condition of the hibernating subjects; and that all in nature, animate or inanimate, are not subject to that condition in cold climates; although the *act* may be termed spontaneous. If Mr. Clarke includes stones in the list of his hibernating subjects, I presume he has an undoubted right so to do; but I am not prepared to accept their condition other than that of a suspension of the elements of their composition, which has existed since the subsidence of the Plutonic epoch in the evolution of this planet.

Mr. Clarke avers that we can arrive at a positive knowledge of the actual hibernation condition, and says, "We can see that." See what? "Bees form a tight cluster and remain in an almost, if not quite, motionless state." So they do at any time when in repose, whether as a swarm hanging from a limb, secreting wax in the hive, loafing from lack of forage or other causes, or among the combs of the brood-chamber in mid-winter. The effect is prominent; but it is the cause that demands solution.

During the past winter one of my colonies remained, what might be termed, perfectly quiet for 158 days, and when it flew on April 6, it was, so far as I could ascertain, in a most satisfactory condition. Thirty other colonies were in very nearly the same

condition. But I do not consider the acts of the above 31 colonies more favorable to a confirmation of the hibernation theory, as set forth by Mr. Clarke, than those of the other 28 that had a flight on Feb. 22.

Mr. Clarke quotes me as saying that "the hive-bee is only physically constituted to experience to a certain degree the condition of *hibernation*." (Italics are mine.) The evasion exhibited by Mr. C. in the above quotation, seems to be a favorite method with him of substituting his own, for the language of those from whom he differs, in discussion. If I am correct in my recollections, the same spirit crops out in his pen-attacks on other correspondents of the AMERICAN BEE JOURNAL.

Had Mr. Clarke quoted correctly, he could have omitted the word hibernation in his comments. I used the word coma as a synonym of dormancy, to illustrate the quiescent condition experienced during cold weather, by such animals as scientists term the true hibernating species, viz: the bear, raccoon, etc. If the "hive-bee is only physically constituted to experience to a certain degree the coma (dormancy) to which the brute animals are subjected during the hibernal period," it is correct to say that the hive-bee does not hibernate in the accredited scientific definition of the term.

I am ignorant concerning the habits of Provincial red-squirrels; but the red-squirrels in this vicinity are out at all times, and in all weathers. They hibernate! certainly. The fiddle possesses a dual capacity, and when the theme is not reconcilable to the compass of one string, a "shift" can be made to the other. At the opening of his fifth paragraph, Mr. Clarke quotes me as saying that "no animated organized being 'can become frozen solid, or even become sufficiently benumbed by cold as to wholly destroy its vital functions and live;'" and says: "This is not so. The black ant can." Here again Mr. C. molds the phraseology to suit his purpose. I made use of the adjunctive phrase, "after having passed the limits of a definite grade of development, etc.," in accordance with its explanatory import.

Observation, and the teachings of those who have made the anatomy of insects a special life-study, prompt me to the belief, that the constituent fluids, the secretory glands, and, in short, the physical organisms of the hive-bee occupy a position in the line of progressive development far in advance of that of the black ant; requiring artificial means to protect existence, where, we are told, the black ant can freeze up in winter, and thaw out in the spring following.

I have never seen a carp; but if the carp possesses a pneumatic and circulating apparatus on a *par* with those of the hive-bee, it would require conversion to convince me that a carp can be frozen-to-death, and be susceptible of re-animation.

Again, Mr. C. writes: "Mr. L. says that, 'life without the influence of motion on matter is inadmissible.'" Admission requires proof. If the bear does not *breathe*, nor *change its position* while hibernating, I should say that the "flames of life" were extinct. The black ant is motionless when frozen solid, as I have observed while splitting partially decayed wood in the coldest weather in mid-winter. We often find the ants in a mass of ice in hollow trees, but I am not *sure* that they ever "come to life" again.

"Crysalids that freeze solid, thaw out and come to life again," says Mr. Clarke. So will the molecules of many of the vegetable species. The stone of the peach germinates more readily by being planted in the fall. The seeds of countless flowering plants freeze, and yet the *germ* of life is not destroyed. I am not informed that the black-ant can be frozen *solid*, i. e., that its fluids are susceptible of congelation!

I think that Mr. Clarke will be compelled to go further than to where "our brethren of the Sunny South who keep bees" reside, to verify his remarks in his closing paragraph. "Bees must have a rest, surely, in the South, as well as in the North." But, when "in the South" means the Torrid Zone, with its "ever blooming flora," can that "rest" be termed hibernation?

In conclusion it is noticeable that, in his review of my article, Mr. Clarke skirmishes around allusions that savor of evolution. It seems to me that if the word *evolve* was substituted for *create*, in the English language, a huge stumbling block to right thinking would be removed. To talk of creating, is a continual butting against fact, when it is very apparent that everything possessing an organism, so to speak, is but the result of evolution—a manifestation of the attributes of one God, one Law, one Element.

Severe Winter and Backward Spring.

I can report 59 colonies of flying bees at present, all apparently in good condition; notwithstanding a severe winter, and a very cold, backward spring. My bee-yard is nearly covered with snow—in some places 1 foot deep. No pollen has been gathered yet; with unfavorable prospects of any for a week to come.

Cumberland, Me., April 16, 1888.

[One article on each side of this discussion is sufficient; it is now closed with the above article.—ED.]

SHIPPING BEES.

A Beginners' Experience in Receiving and Caring for Them.

A Letter written to the Shipper.

BY JOHN HILL.

The bees were very nearly starved when they came to Norton; there the express agent, by mistake, sent them to a man having a very similar name, and when he brought them back, there happened to be an apiarist in the office who asked whose bees they were. After examining them he said they were almost starved, and he would feed them. He bought some sugar, made syrup, took the bees into a room, let them out of the box, fed them, and then put them back again. If it had not been for this man, all the bees would have died, before they reached me; and then they got no more to eat until they came here.

I made some syrup for them at once, and they seemed to be almost starved. It was interesting to see how quickly they licked up large drops of it.

When I had their hive made, the comb foundation had not come yet, so I put them into the hive with empty frames. When I took them out of the box, I found one comb entirely broken loose from the frame, and as dry as if there never had been any honey on it. The next frame to that one was broken and bent to one side, and a part of it was loose at the top, with a very little honey in it. The other frame was all right, and had the queen on it.

I put the comb with the queen in the middle of the hive, the comb that was partly broken next to it, and filled the rest of the hive with empty frames. This was early in the morning. There was very nearly two handfuls of dead bees in the bottom of the box, which appeared to be mostly young bees. There was a little bunch of bees that did not hold to the combs when I took them out, so I brushed them out of the box on the alighting-board of the hive, and they all went in.

The whole operation was performed without receiving one sting. I was very much gratified, for I expected to be stung before I was through. They crawled all over my hands, and never appeared to sting me. I then sat down on the grass, with my nose almost to the hive-entrance, to see what they would do. I soon noticed that some of them came out of the hive and flew away, and before 10 a.m. they were returning loaded with pollen. They worked hard, but paid no attention to me, though I was almost in their way.

Everything appeared to be going on like clock-work; but between 1 and 2 p.m. they surprised me, by commencing

ing to come out of the hive until about one-third of them were out, and kept flying around my head as though they wanted to alight on it. They finally alighted on a bunch of grass about 12 feet from the hive. I do not know what was the matter. The other bees did not seem to pay any attention to them. They came out of the hive and flew right through the others, and came back loaded. After all had settled on the bunch of grass, I carried them back to the hive, but some would return to the grass. I carried the most of them to the hive with my hands, and at sundown I had all but about a table-spoonful of the bees to stay in hive, but those would go back to the grass every time. So I thought if they were determined to cluster there, they might. Early the next morning there was not a bee on the grass. I think that when night came they went to the hive.

The second day everything was all right; but the third day there seemed to be more trouble. There was from three to six bees at the entrance that seemed to be angry, strutting around with their backs up, taking notice of every bee that went in and out, and "cuffing" them. Some of the bees were so weak that they could hardly rise from the alighting-board, and those they would kill. I saw them kill five or six, and a good many more were dead on the grass. This continued for about three days, when it ceased; while it continued there would be a buzzing in the hive at times, but all the time they were busy at work. Not knowing anything about bees, I knew not what the trouble was. I became greatly interested in the whole business; but I concluded that these bees were so nearly starved that they were weak and unable to work, and the strong bees killed them. All the dead ones seemed to be young bees. After this trouble was ended, all went well with them, and the buzzing in the hive ceased.

After they were in the hive about ten days, the feeder, smoker and comb foundation arrived; then I made more frames and filled them with foundation. I opened the hive and found that the broken comb had fallen down. I took it out, and there was about half a tea-cupful of honey in it. They had commenced to build comb in one of the empty brood-frames. This frame I did not take out, but I removed all the empty ones, and filled the hive with frames of foundation.

Up to this time I think there was not more than one-third of the bees a live, caused by starvation and rough usage. I had received but one sting from them, and that was when I gave them comb foundation. They were crawling

all over my hands, and one of them got under my wrist-band and stung me on the wrist. From the time the killing of bees was over, they worked with the greatest industry, but there was no more than about two handfuls of them left.

When they had been in the hive for about 20 days, I saw the first full-blooded Italian bees appear; they multiplied very rapidly, and about Oct. 1 the hive seemed to be full of young bees, not one of the old ones remaining. I believe that they will do very well in this country, and I do not think that bees could do much better in any country than these have done, considering what they had to endure.

Furnas Co., Nebr.

CALIFORNIA.

Keeping Bees in a Salubrious Climate.

Written for the American Bee Journal

BY A. D. STOCKING.

I left Cedar Beach, Ind., on Dec. 22, 1887, the weather being very cold there, and the bees all shut up in their winter quarters. I arrived in National City, San Diego Co., Calif., in the evening of Dec. 29, and what a contrast there was!

The following morning I found 2 colonies of bees, and they were flying all day, and seemed to be bringing in some honey. I do not think that there have been ten days since I came here, that bees have not been out, and now they are very busy getting both pollen and honey. Cultivated flowers have been in bloom out-of-doors all winter, such as geraniums, pansies, roses, candy-tuft, mignonette, etc., and now the country looks beautiful in its carpet of green—beautiful with its myriads of variegated wild flowers, with peaches and apricots in full bloom, and many other fruits are now (March 22) coming into bloom.

The weather, since I have been here, has been like beautiful spring and fall weather of the East. In January we had a few frosts; on three nights ice formed on water out-of-doors, and the ground froze lightly, yet vegetation was but slightly injured. The orange and lemon blossoms were not injured, nor the flowers blooming out-of-doors. The influence of the ocean breezes prevents injury from frosts.

National City is situated on the east side of San Diego Bay, and we can look across the bay to the west and see vessels passing, and the surf breaking on the low beach that separates the Bay from the ocean. We are surrounded by mountains on three sides,

distant from 6 to 12 miles, and we can see many snow-capped mountains, yet I have not seen a flake of snow, neither have we had either thunder or lightning, though there have been several heavy rains.

This is literally a land flowing with bees and honey. The bees occupy crevices in the rocks of the mountains, the church spires, and chimneys of houses in the town. I am told that hundreds of swarms were caught as they were going over the town last season. What bees I have seen were Italians, also a cross between Italians and a brown bee, and are very mildly disposed. All that is required in bee-keeping here is, to provide hives or boxes for the bees to occupy, and room for the storage of honey. No care or preparation is required for the wintering of bees. From what I can learn, bee-keeping is done in a very slipshod manner, and generally a large and cumbersome hive is used—a movable-frame hive, but only a few steps removed from the box-hive.

The most of the honey taken here is extracted. What comb honey is taken, is in the Harbison section, secured together with strips, and used as the Hill sectional box is used. They are put on the market, or in bulk, and the combs cut out of the frames. The improved one and two pound sections are not used here, but they are being introduced into the northern part of this county, and in the counties north of this.

Improved methods and improved hives are being introduced. What is called the "Harbison hive" has been extensively used. It is a large, cumbersome hive, and very unhandy to manage. But a form of the Langstroth hive is now being used, which takes 9 Langstroth frames in the brood-chamber, and 8 frames in the supers. For extracting they are tiered up as high as required.

I am told that the greatest difficulty in bee-keeping is to prevent swarming. Mr. Harbison, the great California bee-keeper, lives in San Diego, four miles from here. Honey is retailing here at the following prices: Comb honey 18 to 20 cents per pound; extracted, 5 to 12 cents per pound, and the quality is fine.

The best honey season ever experienced here is anticipated the coming season. Bee-keeping is not profitable on the low or mesa lands of the coast, but on or near the hills and mountains it is made very profitable, and honey can be produced at one-fourth the expense that it costs in the East.

National City, Calif.

Scatter the Leaflets.—Look at the list (with prices) on the second page.

CONVENTION DIRECTORY.

1888. *Time and Place of Meeting.*

May 19.—Nashua, at Nashua, Iowa.
H. I. House, Sec., Ionia, Iowa.

May 22.—N. W. Ills. & S. W. Wis., at Rockton, Ills.
D. A. Fuller, Sec., Cherry Valley, Ills.

May 31.—Wis. Lake Shore Center, at Kiel, Wis.
Ferd. Zastrow, Sec., Millhome, Wis.

Aug. 3.—Ionia County, at Ionia, Mich.
H. Smith, Sec., Ionia, Mich.

Aug. 14.—Colorado State, at Denver, Colo.
J. M. Clark, Sec., Denver, Colo.

Aug. 27.—Stark County, at Canton, O.
Mark Thomson, Sec., Canton, O.

In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

SELECTIONS FROM OUR LETTER BOX

An Early Swarm.—Henry Patterson, Humboldt, Nebr., on April 30, 1888, writes:

The weather is nice, with frequent showers. Apple bloom is opening, and is giving the bees the first nectar of the season. What bees survived the winter are building up very fast. We have better prospects for a successful harvest than we have had for two years. I hived a natural Italian swarm on April 26. Who had an earlier swarm in this latitude?

Honey from Hard Maple.—Geo. H. Kirkpatrick, New Paris, Ohio, on April 30, 1888, writes:

My bees are doing finely. I never have seen bees breed as rapidly as mine are doing this spring. I think that the majority of bee-keepers will have no trouble to get their colonies in proper condition for the white clover honey-flow. The hard maple trees are now in bloom, and the bees are gathering honey from them. Some of my most populous colonies are gathering surplus. I find it necessary to remove some of the filled combs and replace them with empty ones, to give room for the queen to lay. The peaches, pears, plums and cherries are in bloom; soon the apple trees will be in blossom, and as the white clover is looking fine, surely the prospects are good for a bountiful crop of honey.

Heavy Losses in Wintering.—Wm. Anderson, Sherman, Mo., on April 30, 1888, writes:

The outlook for honey this year is the poorest that I have ever known. White clover was killed by the drouth and the winter, and red clover is all dead. It looks as though there will be nothing for the bees to gather honey from. We have had no rain for four weeks, and everything is drying up, but it looks as if it would rain today. About 70 per cent. of the bees in this part of the country have died from starvation, and that dreadful scourge—foul brood. My loss was very heavy, after trying many of the so-called foul brood cures. I had a fine swarm on April 26, which is something very uncommon here. Everybody was surprised, and I thought something was wrong, but upon examining the colony I found them all right, with a fine young queen; the old colony seems to be in splendid condition, and will be ready to cast another swarm in due time.

Cool and Late Spring, etc.—G. M. Whitford, Arlington, Nebr., on April 23, 1888, writes:

The spring is cool and late. Bees are gathering some pollen, but it is nearly a month later than they commenced storing pollen last spring. As a general thing, bees did not winter as well the past winter as the winter before. I lost 3 colonies out of 13. I enclose my dollar for the "Union." It is the duty of each and every person interested in bee-culture, to aid the Union in its noble undertaking. I have received a package of the Chapman honey-plant seed from the Department of Agriculture.

Cotton-Seed for Winter Packing.—G. W. Crowder, Kosciusko, Miss., on April 24, 1888, writes:

I have 25 colonies of bees in the Simplicity hives, which I work with single story and super with 28 boxes on top. Bees are doing finely here this season. The readers of the BEE JOURNAL should try cotton-seed for winter packing. I think it is excellent for that purpose. Italian bees are far superior to the blacks here.

A Good Harvest Expected.—Mr. F. B. Reynolds, Rossburg, N. Y., on April 30, 1888, writes:

Bees are doing well. We are having some very hot weather here now—86° in the shade. The trees are all ready to burst their buds, and we will soon have a harvest for the bees. By the way they are carrying in the pollen, it seems as if they would fill the hives in a short time. I received two packages of the Chapman honey-plant seed in good time, from the Commissioner of Agriculture.

Wintered Well and Working Hard.—S. Burton, Eureka, Ills., on April 28, 1888, says:

My bees have wintered well on the summer stands. They were packed the same as last winter, which is described on page 684 of the AMERICAN BEE JOURNAL for 1887. I lost one colony by its being queenless. I have 14 colonies, and they are building up fast. They have been gathering natural pollen for a week, and are working hard now.

Loss in Wintering.—Jas. W. Mills, Melleray, Iowa, on April 23, 1888, writes:

I lost 23 colonies out of 29 in the cellar, where the two previous winters I had no loss. Some of them starved, and the rest had the diarrhea, or some other disease. I had 28 colonies in the spring of 1887, some of which were very good, and some very poor. I doubled up the old ones that were weak, and gained only one colony, with about 2 gallons of extracted honey that I ought to have left. I bought 3 colonies about April 1, and I would rather have those than all the rest. I am not the only one to lose bees in this place.

High Water—Bringing Pollen.—C. Theilmann, Theilmanton, Minn., on April 26, 1888, writes:

I put out my 217 colonies of bees on April 21, all having wintered in fine condition, except one that starved. I had put them into two caves on Nov. 17, 1887. Three weeks ago we had about 3 feet of snow. Yesterday and the day before the bees brought in much pollen. Soft maples are

in full bloom. It is warm to-day, and bees are booming for this time of the year. The melting of that heavy snow-fall has made the creeks and rivers very high. The Zumbro river has not been so high since 1859. It has swept away nearly all the bridges and fencing, and the fields are flooded. The railroad was badly damaged. I had no mail for nearly two weeks; but it is all right now.

Gathering Pollen.—H. M. Seeley, Harford, Pa., on April 27, 1888, writes thus:

I know of three who have received seed of the Chapman honey-plant from the Commissioner of Agriculture; I being one. We received it very promptly. My bees gathered the first natural pollen yesterday, and all are doing finely.

Immense Forest Bloom.—N. D. Coffin, Westland, Ind., on May 1, 1888, writes:

I sent to Norman J. Coleman for the Chapman honey-plant seed, and received a package promptly. The bees are doing well. The forest bloom is immense; but the prospect for white clover is not flattering, by any means.

No Loss in Wintering.—Horace S. Ball, Granby, Quebec, on April 28, 1888, says:

It is quite warm here to-day—80° in the shade. I put my 40 colonies of bees out on April 25 and 26. They were in good condition after being 160 days in the cellar. Those in Langstroth hives came out in the best condition, as they always do with me. The first pollen was brought in on April 27.

Hiving-Box—Honey-Plant Seed.—Randolph Graden, Taylor Centre, Mich., writes:

I used just such a hiving-box as is described on page 275. I find it the most convenient of any method that I know anything about.

I sent to the Commissioner of Agriculture immediately after I saw the item in the AMERICAN BEE JOURNAL, that the Chapman honey-plant seed could be had by applying to that Department for it. I received it with several other varieties of seed about three weeks ago.

Clovers Winter-Killed, etc.—Alex. Rose, Sullivan, Ills., on April 30, 1888, writes as follows:

I wrote to Norman J. Coleman, Commissioner of Agriculture, for the Chapman honey-plant seed, and in due time it arrived. I am an agricultural correspondent for this (Moultrie) county; I will also report bee-statistics for the county. I have three persons who will assist me in getting statistics. I find the employees of the Department at Washington very prompt in granting all reasonable requests that come under their care. Almost every county in the United States has regular correspondents who no doubt will look after the reports of bees and honey.

Bees have wintered poorly as a rule in this county. Some bee-keepers have lost $\frac{1}{2}$, some $\frac{3}{4}$, and some almost all; a few have lost none. Bees seem to be healthy, though weak. The white clover seems to be about all dead, and red clover is all dead. The apple, peach, cherry and plum trees are all in full bloom, but seem to yield but little honey. The hard maple or sugar trees

are in full bloom, also red-bud, which seems to have some honey.

I am selling my old honey at 25 cents per pound. I averaged about 25 pounds per colony last season, all of it being of a reddish cast. There was scarcely any white clover honey last year, and but little linden honey. Our crop was mostly from wild bloom, and red clover cut short by drouth, which made the blooms short, so that the bees could reach the honey.

I have no use for separators in sections; I look upon them as a nuisance. I find but little trouble in making foundation stick in the sections. I use full sheets in one-pound sections.

Results of the Season of 1887.—C. H. Jones, Pierceton, Quebec, on April 25, 1888, writes:

In the spring of 1887 I commenced with 13 colonies, 7 of them in box-hives, and increased them to 34 colonies. I bought 19 colonies in the fall, making 53 in all. I secured 500 pounds of linden and clover honey, and transferred those in box-hives, getting 41 pounds of wax. I use the Simplicity hive, and winter my bees in the cellar. The temperature has been from 38° to 43° all winter. I have lost 6 colonies.

Bees Wintered Well.—Mr. John R. Sample, Elizaville, Ind., on April 25, 1888, says:

My bees have wintered well. I commenced in the spring of 1887 with 3 colonies, increased them to 8, and took 100 one-pound sections of honey. I packed 8 colonies last fall for winter, of which 7 are strong, and 1 is weak.

Lucerne and Sweet Clover Honey.—George Hone, Jr., Benjamin, Utah, on April 27, 1888, writes:

I have wintered 150 colonies on the summer stands without loss. I took 2,500 pounds of comb honey, and 14,000 pounds of extracted honey last season, which was gathered from lucerne and sweet clover. This honey was gathered by 138 colonies, spring count, with an increase of only 12 colonies. I find that giving bees plenty of room is the best method to prevent increase. Last season was a very good one for honey in this locality.

Fairly Strong Colonies, etc.—Ira Adamson, Winchester, Ind., on April 26, 1888, says:

I began the past winter with 21 colonies of bees, and I have now 13. Two colonies died with the diarrhea, 1 was killed by robber bees, and 5 became queenless. The rest are tolerably strong. I have been feeding some. If a bee-keeper has but 1 or 2 colonies of bees, it will pay him to take the AMERICAN BEE JOURNAL. I am sorry to hear of Mr. Z. A. Clark's persecutions. Suppose his bees were just outside of the corporation; if there was anything inside of that corporation to work on, how long would it take the bees to get to it? The bee is a privileged character, and if there are any sweets to be gathered, it will have them, or will work very hard to secure them. I have received a package of the Chapman honey-plant.

A Pocket Dictionary will be presented for two subscribers with \$2.00. It is always useful to have a dictionary at hand to decide as to the spelling of words, and to determine their meaning.



ALFRED H. NEWMAN,
BUSINESS MANAGER.

Business Notices.

If You Live near one post-office and get your mail at another, be sure to give the address that we have on our list.

Hilton's new pamphlet on Comb Honey Production has been reduced in price to 5 cents. For sale at this office.

Give a Copy of "Honey as Food and Medicine" to every one who buys a package of honey. It will sell lots of it.

If you Lose Money by carelessly enclosing it in a letter, it is without excuse, when a Money Order, which is perfectly safe, costs but 5 cents.

Please to get your Neighbor, who keeps bees, to also take the AMERICAN BEE JOURNAL. It is now so cheap that no one can afford to do without it.

Preserve Your Papers for future reference. If you have no BINDER we will mail you one for 60 cents; or you can have one FREE, if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

Please write American Bee Journal on the envelope when writing to this office. Several of our letters have already gone to another firm (a commission house), causing vexatious delay and trouble.

The Convention.—The pamphlet containing the report of the proceedings of the Union Convention in Chicago, is now published, and can be obtained at this office for 25 cents. Or bound up with the history of the International Society, and a full report of the Detroit and Indianapolis conventions, for 50 cents, postpaid.

Home Markets for honey can be made by judiciously distributing the pamphlets, "Honey as Food and Medicine." Such will create a demand in any locality at remunerative prices. See list on the second page of this paper.

Always Mention your Post-Office, County and State when writing to this office. No matter where you may happen to be for the hour when actually writing—never mention anything but your permanent address. To do otherwise leads to confusion, unless you desire your address changed. In that case state the old as well as the new address.

Honey and Beeswax Market.**DETROIT.**

HONEY.—Best white in one-pound sections, 15c. Extracted, 20c. Large supply and few sales.
BEESWAX.—23c. 24c.
 Apr. 24. M. H. HUNT, Bell Branch, Mich.

NEW YORK.

HONEY.—We quote: Fancy white in 1-lb. sections, 13c. 15c.; the same in 2-lbs., 10c. 11c.; buckwheat 1-lb., 10c.; 2-lbs., 9c. Market dull.
BEESWAX.—24c.
 MCCAUL & HILDRETH BROS.,
 28 & 30 W. Broadway, near Duane St.
 Apr. 7.

CHICAGO.

HONEY.—Prices range from 15c. 16c. for best one-lb. sections; other grades are slow, at lower prices. Extracted, 7c. 8c. Light demand, and supply larger than usual at this season of the year.
BEESWAX.—23c.
 R. A. BURNETT,
 161 South Water St.
 May 1.

NEW YORK.

HONEY.—We quote: Fancy white 1-lb. sections, 14c. 15c.; fancy 2-lbs., 12c. Lower grades 10c. 2c. per lb. less. Buckwheat 1-lb., 10c. 10c.; 2-lbs., 9c. 9c. Extracted, white, 7c. 7c.; dark, 5c. 5c.
 Mar. 19. F. G. STROHMEYER & CO., 122 Water St.

CHICAGO.

HONEY.—We quote: Fancy white clover 1-lb., 16c. 17c.; 2-lbs., 15c. 16c. Dark is slow sale at almost any price. Extracted is scarce, and sells at 7c. 10c.
BEESWAX.—23c.
 S. T. FISH & CO., 180 S. Water St.
 Mar. 13.

CINCINNATI.

HONEY.—We quote extracted at 4c. 9c. per lb., for which demand is good. Comb honey, 14c. 17c. Demand slow.
BEESWAX.—Demand is good—20c. 22c. per lb. for good to choice yellow, on arrival.
 Apr. 23. C. F. MUTH & SON, Freeman & Central Av.

MILWAUKEE.

HONEY.—Choice white one-lb. sections, 16c. 17c.; 2-lbs., 15c. 16c.; 3-lbs., 14c. Extracted, white in kegs and 1/2-barrels, 8 to 9c.; in tin and pails, 9c. 10c.; dark in barrels and kegs, 5c. 7c. Market fair.
BEESWAX.—23c. 24c.
 Apr. 23. A. V. BISHOP, 142 W. Water St.

DENVER.

HONEY.—Best white 1-lb. sections, 17c. 18c.; 2-lb. sections, 15c. 17c. Extracted, 7c. 10c.
BEESWAX.—20c. 23c.
 Mar. 1. J. M. CLARK & CO., 1409 Fifteenth St.

KANSAS CITY.

HONEY.—We quote: Choice white 2-lb. sections, 17c. 18c.; dark 2-lbs., 14c. 15c.; choice white 1-lb., 18 to 20 cts.; dark 1-lb., 15c. 16c. White extracted, 7c. 8c.; dark, 6c. 6c. Demand is slow. White extracted is firm when in 60-lb. tin cans.
BEESWAX.—21 to 22c.
 Mar. 29. HAMLIN & BEARSS, 514 Walnut St.

BOSTON.

HONEY.—We quote: 1-lb. sections, 16c. 17c.; 2-lb. sections, 14c. 16c. Extracted, 8c. 9c. The market is not very brisk and sales are slow.
BEESWAX.—25 cts. per lb.
 Mar. 24. BLAKE & RIPLEY, 57 Chatham Street.

SAN FRANCISCO.

HONEY.—We quote: White to extra, 10c. 17c.; amber, 9c. 14c. Extracted, white liquid, 7c. 7c.; amber and candied, 6c. 7c. Market quiet.
BEESWAX.—18c. 21c.
 Mar. 20. SCHACHT & LEMCKE, 122-124 Davis St.

KANSAS CITY.

HONEY.—We quote: White 1-lb., glassed, 16c. 17c.; unglazed, 17c. 18c.; and dark 1-lb., glassed, 15c.; unglazed, 16c.; white 2-lbs., glassed, 10c.; unglazed 2-lbs., 17c. California white 2-lbs., 17c. California extracted in 60-lb. cans, 8c. Market quiet and receipts are larger.
BEESWAX.—No. 1, 20c.; No. 2, 18c.
 Mar. 19. CLEMONS, CLOON & CO., cor 4th & Walnut.

Clover Seeds.—We are selling *Alsike* Clover Seed at the following prices: \$8.00 per bushel; \$2.25 per peck; 25 cents per lb. *White Clover Seed*: \$10.00 per bushel; \$2.75 per peck; 30 cents per lb. *Sweet, or Melilot, Clover Seed*: \$6.00 per bushel; \$1.75 per peck; 20 cents per lb.—by express or freight.

Yucca Brushes. for removing bees from the combs, are a soft, vegetable fiber, and do not irritate the bees. We supply them at 5 cents each, or 50 cents a dozen; if sent by mail, add 1 cent each for postage.

Alfalfa Clover.—For habits and cultivation of this honey-plant, see page 245. We supply the seed at the following prices: —Per lb., 23c.; per peck, \$3.00; per half-bushel, \$5.50; per bushel of 60 lb., \$10.00. If wanted by mail, add 18 cents per pound for bag and postage.

A Modern BEE-FARM, and its Economic Management; showing how bees may be cultivated as a means of livelihood; as a health-giving pursuit; and as a source of recreation to the busy man. By S. Simmins. For sale at this office. Price, \$1.

Paper Boxes—to hold a section of honey for retail dealers. We have two sizes on hand to carry sections 4 1/2 x 4 1/2 and 5 1/2 x 5 1/2. Price, \$1.00 per 100, or \$8.50 per 1,000.

Advertisements.**80 COLONIES of BEES**

FOR SALE, CHEAP. For PRICES and further particulars, address
 19Atf G. A. Prochnow, Mayville, Wis.
 Mention the American Bee Journal.

ITALIANS on Langstroth frames—Two-frame Nucleus (no Queen) \$1.25; 3-frame, \$1.75. Each Nucleus to contain frames filled with brood and a plenty of bees. Orders filled promptly. **TESTED QUEENS**, \$2.00; Untested, after May 30, \$1. **BEES** per Pound, after May 20, 65 cents. Safe arrival and satisfaction guaranteed. No foul brood.
 19A4t H. L. Pangborn, Maquoketa, Iowa.

Mention the American Bee Journal.

OUR ILLUSTRATED**CATALOGUE FOR 1888**

WILL be mailed free to any one who is not already supplied with it. Send us your address, plainly written, on a Postal Card.

THOS. G. NEWMAN & SON,

923 & 925 W. Madison-St., - CHICAGO, ILLS.

HOW TO RAISE COMB HONEY,

PAMPHLET full of new and improved methods; Price, 5 one-cent stamps. You need also my list of Italian Queens, Bees by the lb., and Supplies. **OLIVER FOSTER,**
 13Atf Mt. Vernon, Linn Co., Iowa.

Dadants' Foundation Factory, wholesale and retail. See advertisement in another column.



SURE to send for our Circular before buying. Italian Bees by the lb., 2 or 3 fr. Nuclei, Queens, Foundation, &c. Unt'd Queens in May, \$1; in June, 75c.; 6 for \$4.
 Jno. Nebel & Son, High Hill, Mo.
 14Atf

Mention the American Bee Journal.

Send 75 Cents for my New Book — "A Year among the Bees:" 114 pages, cloth bound. Address,
 20Atf **DR. C. C. MILLER,**
 MARENGO, ILLS.

THOMAS G. NEWMAN & SON,

WHOLESALE & RETAIL

SUPPLIES for BEE-KEEPERS

ALSO DEALERS IN

HONEY and BEESWAX,

923 & 925 West Madison St., CHICAGO, ILL.

Dadants' Foundation Factory, wholesale and retail. See advertisement in another column.

The Bee-Keepers' Review

If ever a bee-paper was started with a place ready and waiting for it, the REVIEW has had that luck. The first number was welcomed before it was read, and when it was read, it took its place easily and at once among the things that justify their own existence, and need no probation before being fully and finally accepted. It is an imitation of none of its cotemporaries, and it is on a level with the best of them, both in the merit of its general scheme, and in typographical neatness. This, we believe, will be the verdict of the intelligent bee-keeping public, and, as proof of the correctness of this belief, we append the following, which we select from a large number of similar congratulations:

I am greatly pleased with the REVIEW, and think it very creditable. It must take the lead with intelligent bee-keepers. — R. L. TAYLOR, Lapeer, Mich.

You have made an excellent start; and I am very favorably impressed with your plan of making each issue a "special number." — E. M. HAYTHURST, Kansas City, Mo.

From a practical standpoint you are well qualified to make the venture a success. I hope you may do well financially, and establish an enviable reputation for editorial ability, as you have already as a writer on apicultural topics. — EUGENE SMOOK, Forest City, Iowa.

REVIEW No. 1 lies before me, and I must say it is like a chestnut—brimful of meat, properly cooked, and served in first-class palatable order. Before reading it I thought, "What can friend Hutchinson say that has not already been said by others?" But you have given us a feast of fat things. If the REVIEW keeps up to the standard of No. 1, it has a bright future before it. — W. E. CLARK, Oriskany, N.Y.

I like the REVIEW in every respect. There is more in it than in any other bee-paper I have ever seen; that is, more real meat, or what is called meat, as I see it. The whole matter, including advertisements, is tastefully arranged. I cannot conceive who would not instantly subscribe, at the price, after seeing a copy. — JAMES HEDDON, Dowagiac, Mich.

I congratulate you upon the excellence of the REVIEW. It will be an honor to the craft, and to our State, if you maintain it at the starting pitch, and I do not doubt but you will. At first I was sorry. What we want is fewer, better papers. But I forgot for the moment who was at the helm. I believe you will succeed, and if you do not go to the top, you will stride well up. — A. J. COOK, Agricultural College, Mich.

A sample copy of the REVIEW is at hand, and I was agreeably surprised, to say the least. As a rule, periodicals in starting furnish at first a sickly, discouraging appearance that stamps failure all over them. What a contrast in beholding the REVIEW! Why, friend Hutchinson, the first glance at it shows its success. And then its contents—the very cream of advanced bee-literature. I read it through before laying it out of my hand. — E. KRETCHMER, Colburg, Iowa.

Four numbers of the REVIEW have been issued. The January number discusses "Disturbing Bees in Winter;" the February issue is devoted to "Temperature," as applied to bee-repositories; the March number takes up the subject of "Planting for Honey;" while "Spring Management" is the special topic of the April issue. The special subject of the May REVIEW will be "Hiving Bees."

Besides these special discussions, which are carried on by the best bee-keepers of the country, there are several pages in each issue devoted to short, sharp, concise editorials upon current apicultural topics. An exhaustive review of Mr. Cheshire's book, "Bees and Bee-Keeping, Vol. II," is begun in the March REVIEW, and will be finished in the May number. If you wish for the cream of this great work, read these three numbers.

Price of the REVIEW is 50 cents a year. Samples cheerfully sent upon application.

The Production of Comb Honey,

A neat little Book of 45 pages, price 25 cents. The REVIEW and this book for 65 cents. Stamps taken, either U. S. or Canadian.

Address, **W. Z. HUTCHINSON,**
 18Atf 613 Wood St., FLINT, MICHIGAN.
 Mention the American Bee Journal.

WANTED,

Beeswax.—We will pay 20 cents per pound, delivered here, for Yellow Beeswax. To avoid mistakes, the name of the shipper should always be on each package.

THOS. G. NEWMAN & SON,

923 & 925 West Madison St., - CHICAGO, ILLS.